A NEW SYSTEM OF HARMONY

Based on

Four Fundamental Chords

EDUARDO GARIEL

NEW YORK G. SCHIRMER

LT

1-30-59

Earl Kimball

A NEW SYSTEM OF HARMONY

BASED ON

FOUR FUNDAMENTAL CHORDS

146

BY

EDUARDO GARIEL

TEACHER OF MUSICAL COMPOSITION AT THE NATIONAL CONSERVATORY OF MUSIC IN THE CITY OF MEXICO; CHIEF SUPERVISOR OF SCHOOL MUSIC, AND TEACHER OF THE METHODOLOGY OF SCHOOL MUSIC AT THE BOYS' NORMAL SCHOOL, IN THE SAME CITY

G. SCHIRMER

BOSTON ∴ NEW YORK ∴ LONDON

26305

To

VENUSTIANO CARRANZA

First Chief of the Constitutionalist Army
Invested with the Executive Power

This is a revolutionary book. To whom should I dedicate it better than to the leader of the greatest and most transcendental revolution that ever occurred in Mexico? I beg you to accept it, not only as a token of our old friendship, but as a tribute to the man who has in his hands the reconstruction of our beloved country. THE AUTHOR.

City of Mexico, January, 1916.

CONTENTS

A NEW SYSTEM OF HARMONY
BASED ON FOUR FUNDAMENTAL CHORDS

A well-known fact in the domain of science is the great importance of a good classification. The classification that I shall explain here is based *on four fundamental chords,* and is marked by a clearness and simplicity not ordinarily found in books treating on this subject.

Every well instructed musician knows that the classification now employed groups the musical chords *according to their form:* and so we have *major* chords, *minor* chords, chords of the *sixth,* of the *sixth and fourth,* chords of the *seventh,* of the *fifth and sixth,* of the *third and fourth,* of the *second,* and so forth, according to certain intervals that are found in them.

Since Rameau (eighteenth century) this classification has served, it is true, to explain and teach musical Harmony; but surely very many have felt, as I always have, that even after learning to write and play musical chords, it always remains a kind of mystery to employ them in a musical way, and this is especially true of the triads and their inversions.

As you will see further on, in my classification the chords are grouped according to their *tendencies,* making *families of chords* which obey the *same law,* irrespective of their form.

The books on Harmony teach that chords of the seventh have certain prescribed movements — or "resolutions," as they are called — but they also teach other movements or resolutions considered as exceptional. Talking about the triads, which are treated first, they say that these are more difficult to handle, being more free in their movements; to guide you they establish certain fixed and almost inflexible rules that leave you in

the dark as to their origin and reason. What is worse, there are many text-books that do not say anything about the movements of these chords.

The truth about this — and I consider it a real discovery of mine — is that the *triads* also have a tendency, as well as the *dissonant* chords, and that this *tendency* is the same when both — triads and chords of the seventh — have the same fundamental and come from the same origin or *great fundamental chord.*

But now let us leave criticism of the known systems, and speak about the new classification and its results. I hope that my fellow musicians will find it clear, easy and logical, and, above all, practical and useful for the teaching of musical composition.

To make perfectly plain the *laws* that govern the movements of musical chords, it is necessary to go back to the musical scale itself on which modern music is based. If we consider the *real* musical scale and not the conventional one ordinarily explained in musical books, we find the following facts:

(1) It has eight sounds or degrees, called **C, D, E, F, G, A,** B, C in the key of C.

(2) The mathematical ratios, as given in Acoustics, between each degree and the fundamental, or first one, are as follows:

1							
C	D	E	F	G	A	B	C
1	$\frac{9}{8}$	$\frac{5}{4}$	$\frac{4}{3}$	$\frac{3}{2}$	$\frac{5}{3}$	$\frac{15}{8}$	2

Here follows the explanation of this figuring: If we take a C of 240 vibrations, the D — or second degree — whose ratio is $\frac{9}{8}$, will have 9 vibrations in the same time that C has 8, or (completing the computation), $240 \times 9 \div 8 = 270$ vibrations for D; and so forth.

Now, if we want to know the mathematical ratios *between all the contiguous degrees* of the scale, we shall find them by dividing the greater one by the lesser. Taking C as 1, we aready have

the ratio of D to C, or $\frac{9}{8}$. The ratio between D and E is found by dividing $\frac{5}{4}$ by $\frac{9}{8} = \frac{40}{36} = \frac{10}{9}$, which is the ratio between the second and third degrees of the scale; and so forth.

Below are given the ratios between all contiguous degrees of the scale:

2

C		D		E		F		G		A		B		C
	$\frac{9}{8}$		$\frac{10}{9}$		$\frac{16}{15}$		$\frac{9}{8}$		$\frac{10}{9}$		$\frac{9}{8}$		$\frac{16}{15}$	

On inspection we can see at once three different relations and, at the same time, three different kinds of intervals. The one represented by $\frac{9}{8}$ is called the *greater tone;* the one represented by $\frac{10}{9}$ is called the *lesser tone.* The difference between a *greater* tone and a *lesser* tone is found by dividing their respective ratios as follows: $\frac{9}{8} \div \frac{10}{9} = \frac{81}{80}$. This difference, amounting to $\frac{81}{80}$, is called in Acoustics a *syntonic comma.*

As not everybody is inclined to mathematical calculations, I will present the scale and its intervals in the following table:

3

C		D		E		F		G		A		B		C
	greater tone		lesser tone		half-tone		greater tone		lesser tone		greater tone		half-tone	

Little by little, as music was changing from the church modes to the modern scale, musicians felt, empirically, the *tendency* of certain degrees of the scale to proceed to some other degrees. These tendencies are acknowledged in Harmony text-books as follows: The *seventh* degree *tends* to the *eighth,* the *fourth* degree *tends* to the third, and the *sixth* degree *tends* to the *fifth.* I must state that many books do not even mention the tendency of the sixth degree.

If we study attentively the last example we shall notice that the seventh degree (B) has on the right an interval of a *half-tone*, while on the left the interval is a *greater tone;* so when B shows *a tendency* to C, it tends to where the interval *is smaller.*

Looking now at the fourth degree (F), we notice that it has a *greater tone* on the right and a *half-tone* on the left; so, when F shows *a tendency* to E, it is again where there is *a smaller* interval. Considering the sixth degree (A), we see that on the right is *a greater* tone, while to the left is *a lesser* tone; so, when A tends to G, it tends to the side where there is *a smaller* interval, just as in the other two cases examined.

These three particular cases, in which each degree *tends* to the side where the interval is *smaller*, authorize us to deduce *a law* that may be thus expressed: *The degrees of the scale which have a tendency, obey the* **law of lesser effort.**

Seeking now for another degree of the scale that may conform to this law, we find *the second degree* (D), which is placed between unequal intervals, having on the right *a lesser tone* and on the left *a greater tone;* therefore, the *second* degree *must obey* the established *law of lesser effort* and have *a tendency* to the *third* degree (E). As there is no book, that I know of, assigning any *tendency* to the second degree, I çonsider that the *tendency* now spoken of is a real discovery that must be taken account of in a modern method of musical composition.

The *law of lesser effort* can not be applied to the first (C), third (E) and the fifth (G) degrees of the scale, because the first is the fundamental of the scale and G and E are strong overtones of C, blending with it so closely as to give almost the same sensation.

MUSICAL CHORDS

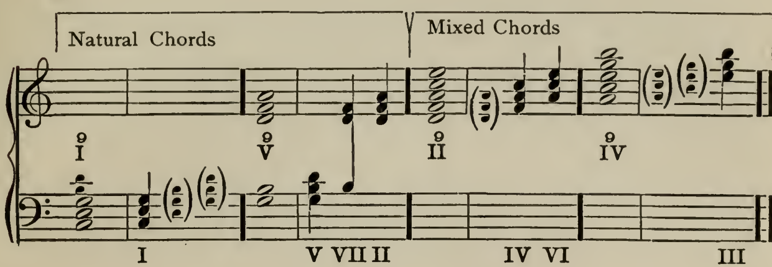
The simultaneous sounding of three, four or five tones at the interval of a third from one another is called *a musical chord.* The study of chords and their connections is known as the Science of Harmony.

According to the new system to be explained here, the whole harmonic structure is based on four fundamental chords of five tones each. These five-tone chords are called in Harmony *chords of the ninth;* their root-tones are the 1st, 5th, 2d and 6th degrees of the scale, respectively.

In the following table the fundamental chords are represented in whole notes. The first chord and the fourth have four notes in common (C, E, G, B), as shown by brackets. The chords in quarter-notes are three-tone chords derived from the great chords.

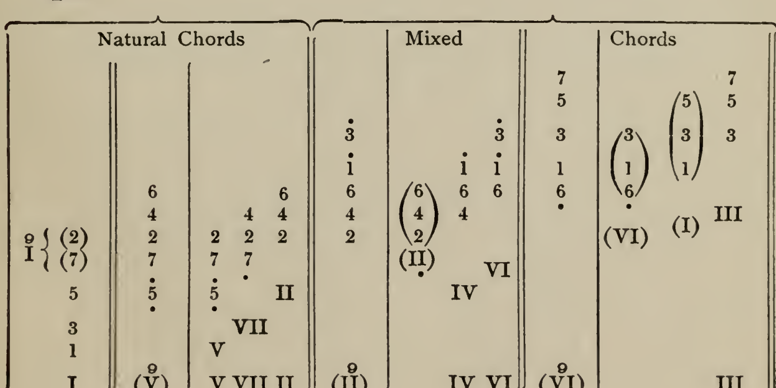
HARMONIC SYSTEM BASED ON FOUR FUNDAMENTAL CHORDS

4



This form may be better represented by Arabic figures than by notes. And I say better, because the figures stand for degrees of the scale, irrespective of the tonality or key, and are applicable to all the keys; whereas, the form with notes, in the foregoing tables, applies only to the key of C. We ought to have one form which fits every key.

4 bis



Playing the first chord C–E–G–B–D on a piano or organ — all the tones simultaneously, of course — in the key of C, we feel that the chord produced is *dissonant* and gives the sensation of movement or, in other words, that it has a *tendency* to move and proceed to another chord. Taking out the second degree (D) marked with the figure 2, we get a chord of four tones (C–E–G–B, in the key of C), which also gives the sensation of movement.

CHORD I: ORDINARILY CALLED THE TONIC CHORD

Now, leaving out the seventh degree (B), marked in the table with the figure 7, we get a chord of three tones (C–E–G in the key of C):

This chord is called *perfect* or *consonant*, and playing it we get a sensation of *rest*, as G and E are overtones of C, and the three together sound very well, giving a quiet and peaceful sensation. The figuring of this triad formed on the first degree of the scale is with a Roman number I underneath, as it is in the above example.

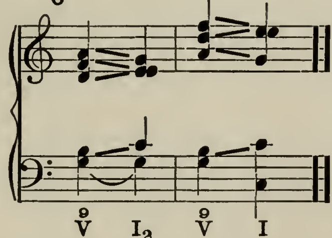
CHORD OF THE $\overset{9}{\text{V}}$, ORDINARILY CALLED DOMINANT NINTH-CHORD

Considering now the second chord of my system, that is, *the chord of the ninth on the fifth degree* (5–7–2–4–6), figured $\overset{9}{\text{V}}$, we notice that it has one degree — the fifth — in common with the chord I, or tonic chord, and that the remaining degrees (7–2–4–6) are precisely those that, according to *the law of lesser effort*, have *a tendency*. It is interesting to observe here that the *tendency* of the active degrees of the scale is just as urgent when they are *alone in the melody*, as when they come *together*

in musical chords, as you will see later. The strong union of *melody* and *harmony* is really noticeable, and it has been a great mistake in the text-books to treat them separately, thus dividing their study.

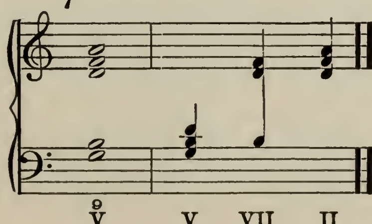
Playing now on the piano the *dominant ninth* chord, or *ninth-chord on the fifth* degree (which is perhaps more clear), $\overset{9}{\mathrm{V}}$, we feel at once a very strong sensation of movement, which is quite natural, as this chord has in it the four degrees of the scale (7, 2, 4, 6) that have a *moving tendency.* As the *tendency* of each of these degrees is, individually, toward a degree of the *tonic chord* or chord I, the natural tendency, or, as we may say, "the *law* of movement" of the chord $\overset{9}{\mathrm{V}}$, is to go to chord I:

6



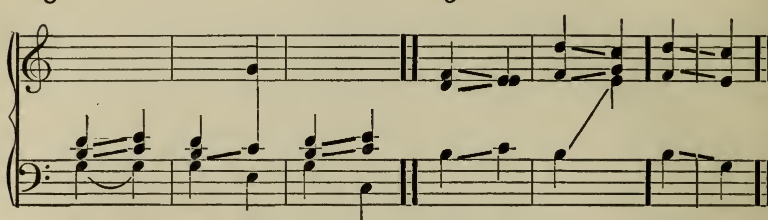
As the $\overset{9}{\mathrm{V}}$ chord has *five* sounds and chord I only *three*, it has been necessary, in this example, to double two notes. We may also, and this is more convenient, divide up the great chord into *three* chords of *three* tones each; the great chord $\overset{9}{\mathrm{V}}$ now becomes the father or great fundamental of *three* smaller chords based, respectively, on the 5th, 7th, and 2d degrees of the scale, which give them their names, and which are figured with Roman numerals, as follows:

7



Each of these chords, like the great fundamental chord from which they come, has a natural *tendency* to the *tonic* chord or chord I; and this is easily explained, as each chord (the V, the VII and the II) has two or three degrees with an individual *tendency* in conformity with the established *law of lesser effort.* So the following connections are very good:

8 9



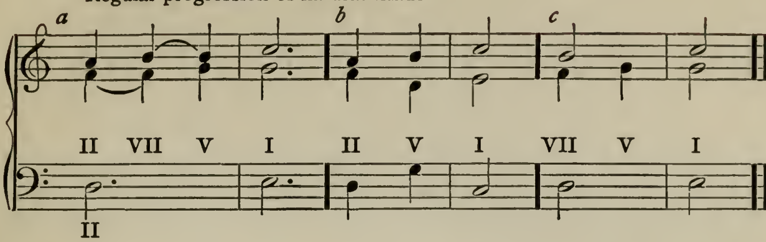
10

I call the first two chords of my system (the I and the $\overset{9}{\text{V}}$) *natural* because in them we find *all* the degrees of the scale, and one or the other may harmonize each and every degree in the scale itself or that may be in any diatonic melody.

The chords V, VII and II are also *natural,* because they are found, as we have seen, in the great *natural* $\overset{9}{\text{V}}$ chord, and combine between themselves easily, preferably in a contrary direction to that in which they are found; they were derived in this order: V, VII, II, and are interconnected in the reverse order: II–VII–V, or II–V, or VII–V. This is the *regular* and *logical* progression of these chords.

11

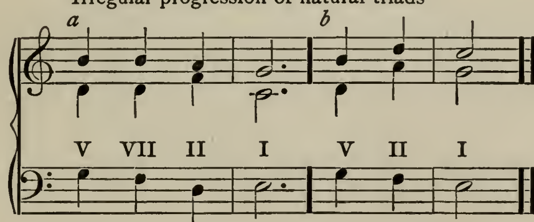
Regular progression of natural triads



It is also possible, *though irregular,* to combine them in the same order that we found them, giving them a sensation *of going away from the tonal centre:* V–VII–II, or V–II, or VII–II.

12

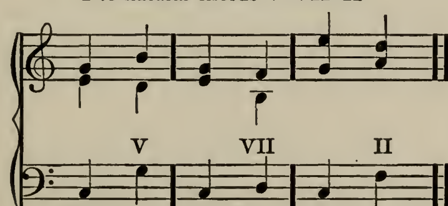
Irregular progression of natural triads



The tonic chord (I) can progress freely into any other chord, as it has not any degree with a *tendency;* so the following connections are very good: I–V, I–VII, I–II.

13

I to natural chords V–VII–II



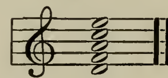
With these four natural triads (I, V, VII and II) we have enough elements to harmonize *any melody,* and there are numerous instances in which the great masters used them exclusively. From Bach to Bellini you will be surprised to find them

harmonizing beautiful melodies; also see the first part of "The Wedding Chorus" from Wagner's *Lohengrin*, and almost any melody of Bellini, the world-famous master of melody.

CHORD OF THE $\overset{9}{\text{II}}$

Let us now consider the *third chord of my system*, that is, the *ninth-chord on the supertonic or second degree*, figured $\overset{9}{\text{II}}$ and composed of degrees 2, 4, 6, 1, 3.

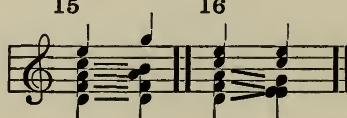
14



$\overset{9}{\text{II}}$

This is a *mixed chord*, as it has three degrees (2, 4, 6) from the natural dominant chord $\overset{9}{\text{V}}$, and two degrees (1, 3) from the tonic chord I. Its law of movement is *duplex*, for it may go naturally towards the chord $\overset{9}{\text{V}}$ as well as towards the tonic chord I, because it has notes in common with them both:

15 16



$\overset{9}{\text{II}}$ $\overset{9}{\text{V}}$ $\overset{9}{\text{II}}$ I

Dividing up the chord of the *ninth on the second degree* ($\overset{9}{\text{II}}$) (2, 4, 6, 1, 3) into three triads, we get

2–4–6	4–6–1	6–1–3
(II)	IV	VI

17

$\overset{9}{\text{II}}$ IV VI

One of these chords — the II — we have already had; but we now get *two new chords* — the IV and VI — that are based on the *fourth* and *sixth* degrees respectively.

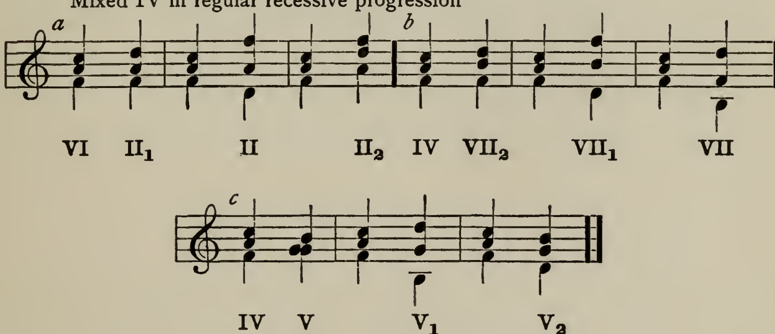
These two chords (IV and VI), like the great chord from which they come, are *mixed chords;* the one on the fourth degree (IV) has two degrees (4 and 6) from the natural chord $\overset{9}{V}$, and one degree (the I) from the natural chord I. The chord IV, or subdominant chord, as it is generally called, is considered in text-books as a *principal chord* in Harmony; but it would seem preferable to consider it a *mixed chord.*

The chord VI is also a *mixed chord,* as it has degree 6 from the natural dominant chord $\overset{9}{V}$ and degrees 1 and 3 from the natural tonic chord I.

The law of movement of these two *mixed* chords (IV and VI) is *duplex;* they may pass easily to the derivatives of the $\overset{9}{V}$:

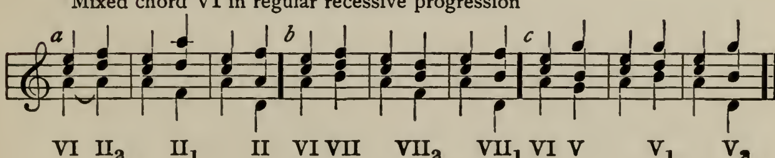
18

Mixed IV in regular recessive progression



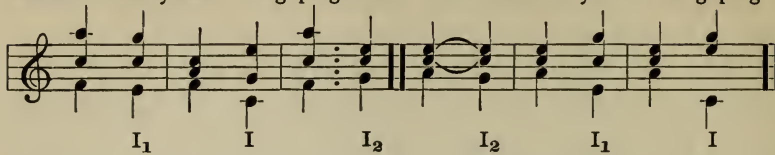
19

Mixed chord VI in regular recessive progression



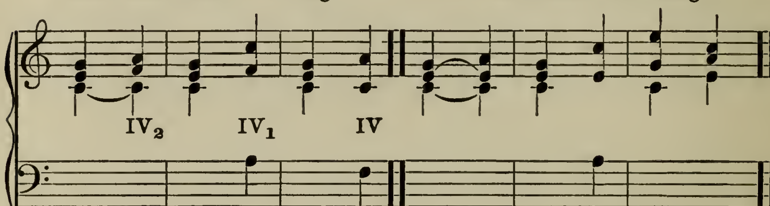
or directly to chord I:

20 Mixed IV foll. by nat. I : Reg. progression **21** Mixed VI foll. by nat. I : Reg. prog.



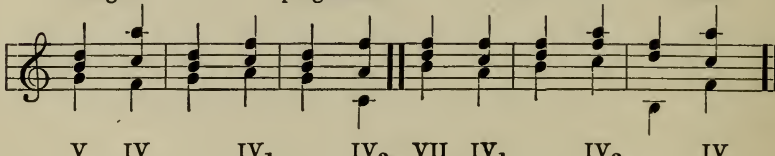
The mixed chords IV and VI may, very well, follow the chord I (that is, I–IV and I–VI), not only because they have degrees in common with that chord, but also because the *tonic* chord can go to any other chord, as it has not any degree with a *tendency.*

22 Nat. I with mixed IV. Reg. **23** Nat. I with mixed VI. Reg.

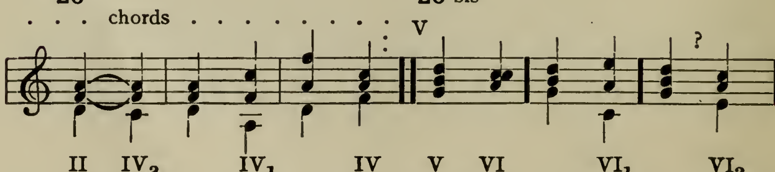


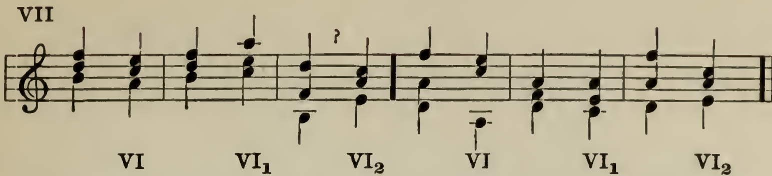
Lastly come the connections of the *mixed chords* IV and VI preceded by natural triads. These connections, *though irregular,* are possible, and give the sensation of *going away from the tonal centre:*

24 Irregular . . . . progression **25** . . . . of . . . . natural .



26 . . . chords . . . . **26** bis



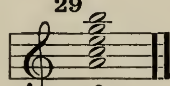


The mixed chords IV and VI may be interconnected in any order, as their fundamentals are separated by an interval of a third and give the impression of being a single chord of four tones: IV–VI is good, but VI–IV is better and more used for its *regular recessive progression:*

27 Reg. progression of mixed chords   28 Irreg. progression of mixed chords

CHORD OF THE $\overset{9}{\text{VI}}$, ALSO CALLED NINTH-CHORD OF THE SUPERDOMINANT

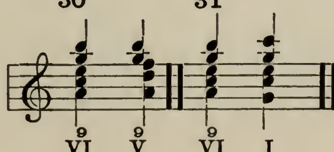
29



$\overset{9}{\text{VI}}$

This is the fourth chord of my system. It has two degrees (the 6 and 7) from the natural dominant chord $\overset{9}{\text{V}}$, and three degrees (1, 3 and 5) from the natural *tonic* chord I. This, then, is a mixed chord, and being *a mixed chord,* its *law of movement is duplex;* it can go equally well either to $\overset{9}{\text{V}}$ or to I:

30 31

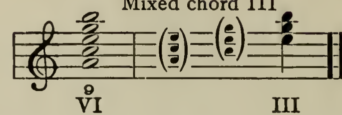


Dividing up the chord $\overset{9}{\mathrm{VI}}$ (6, 1, 3, 5, 7) into three triads we have:

6–1–3	1–3–5	3–5–7
(VI)	(I)	(III)

32

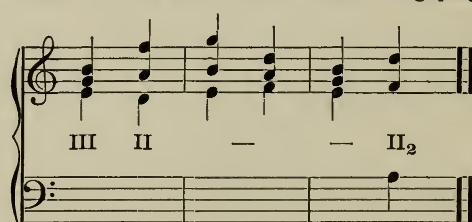
Mixed chord III



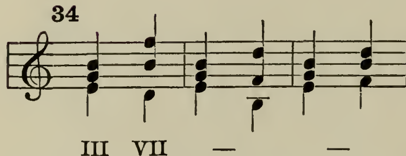
Here are two chords that we have already had (VI and I), and a new triad, the III. This triad III has one degree — the 7 — from the natural $\overset{9}{\mathrm{V}}$, and two degrees — the 1 and 3 — from the natural chord I. Thus it is *a mixed chord*, like the great chord $\overset{9}{\mathrm{VI}}$ from which it comes, and its *law of movement is duplex;* it can pass easily to the derivatives of the chord $\overset{9}{\mathrm{V}}$ (that is, III–II, III–VII, III–V):

33

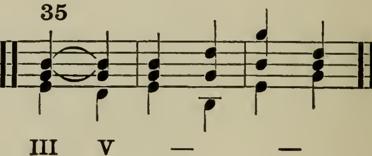
Mixed III with nat. II–VII–V and I: Reg. prog.



34



35

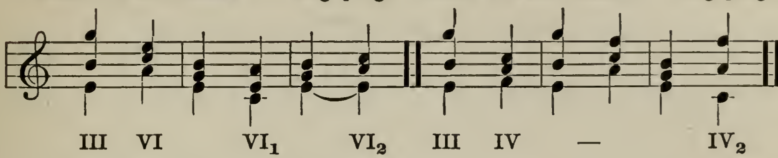


or directly to I (III–I):

36

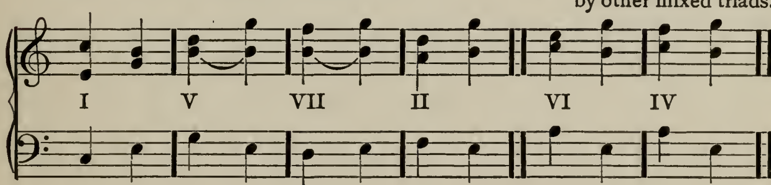
The connections of the mixed chord III with the other *mixed* chords VI and IV, in *regular regressive order*, are also good and much recommended in the usual text-books:

37 Mixed III with mixed VI: Reg. progr. 38 Mixed III with mixed IV: Reg. progr.



In fact, these last two connections are the only ones recommended by some writers, but the great composers also employ triad III with the connections given in Examples 33, 34, 35 and 36. This is quite logical, as triad III is *a mixed one*, and has notes in common with the natural chords I and V. Hence, the relation of triad III to both chords, as well as to their derivatives, is evident. There is, therefore, no reason to limit the connections of this triad with IV and VI, as is done in most text-books on Harmony. The mixed triad III may follow, *in irregular order*, every natural three-tone chord, and also every other mixed chord:

39 Mixed III preceded by nat. triads. 40 Mixed III preceded by other mixed triads.

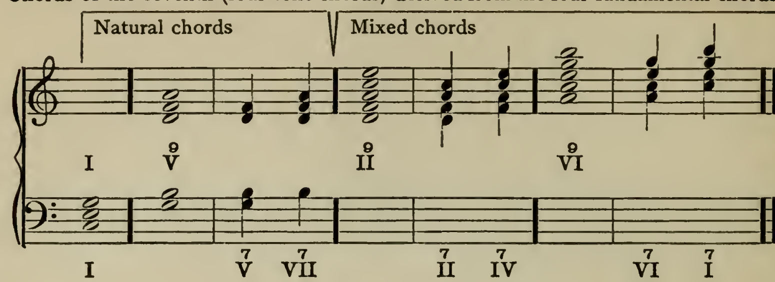


FULL FOUR-TONE CHORDS, OR SEVENTH-CHORDS

The full four-tone chords, or "chords of the seventh," as they are called, are also found in the four great chords of my system, as may be seen here:

41

Chords of the seventh (four-tone chords) derived from the four fundamental chords



41 bis

Natural chords				Mixed chords					
							7		7
							5	5	5
				3		3	3	3	3
				1	1	1	1	1	1
	6		6	6	6	6	6	6	
	4	4	4	4	4	4			
	2	2	2	2	2				
	7	7	7						
5	5	5							
3									
1									
I	$(\overset{9}{\text{V}})$	$\overset{7}{\text{V}}$	$\overset{7}{\text{VII}}$	$(\overset{9}{\text{II}})$	$\overset{7}{\text{II}}$	$\overset{7}{\text{IV}}$	$(\overset{9}{\text{VI}})$	$\overset{7}{\text{VI}}$	$\overset{7}{\text{I}}$

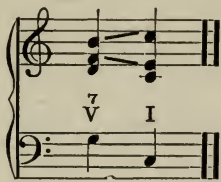
I will treat them in the order in which they develop, that is, from left to right, this being their logical order and also the order of their importance and frequency of employment.

SEVENTH-CHORD ON THE DOMINANT (FIFTH DEGREE) FIGURED $\overset{7}{\text{V}}$

This very important and useful chord is found in the natural chord $\overset{9}{\text{V}}$, and is also a *natural chord.* It is formed by degrees 5, 7, 2 and 4, the last three of which have a marked individual

tendency according to the *law of lesser effort.* Its law of progression is to connect with the *tonic* triad or chord **I**:

42

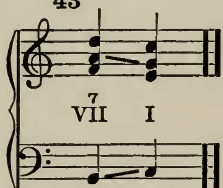


The text-books call this connection "the natural resolution of the dominant seventh-chord."

SEVENTH-CHORD ON THE SEVENTH DEGREE, FIGURED $\overset{7}{\mathrm{VII}}$

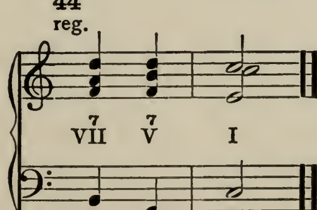
This chord is also found in the natural chord $\overset{9}{\mathrm{V}}$; hence, it is a *natural* chord. It is formed by degrees 7, 2, 4 and 6, all of them having a marked tendency according to the *law of lesser effort.* Its law of movement is to the *tonic* chord or triad **I**:

43



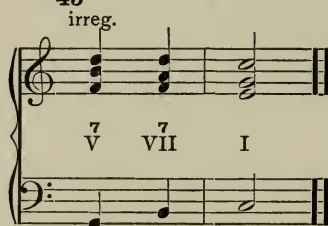
To connect the $\overset{7}{\mathrm{VII}}$ with the $\overset{7}{\mathrm{V}}$ in *regular regressive order* is very easy and natural. These chords developed as follows: $\overset{7}{\mathrm{V}}$ and $\overset{7}{\mathrm{VII}}$; they return to the tonal centre in reverse order, $\overset{7}{\mathrm{VII}}$–$\overset{7}{\mathrm{V}}$:

44



We notice here that the $\overset{7}{\text{VII}}$, instead of obeying its law of progression (going directly to I), passes to $\overset{7}{\text{V}}$, *which has the same tendency* to the tonic triad; this effect is nothing more than a *prolongation of the same tendency.* The connection of the $\overset{7}{\text{VII}}$ preceded by the $\overset{7}{\text{V}}$, that is, $\overset{7}{\text{V}}$–$\overset{7}{\text{VII}}$, is also good, though irregular, as the progression of the $\overset{7}{\text{V}}$ is not toward the tonal centre, but away from it:

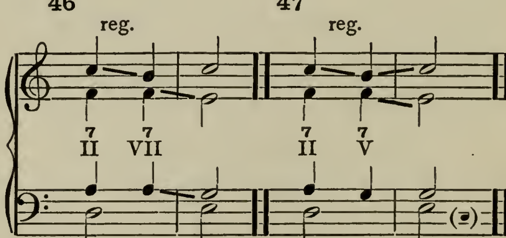
45



SEVENTH-CHORD ON THE SECOND DEGREE, FIGURED $\overset{7}{\text{II}}$

The chord $\overset{7}{\text{II}}$ is derived from $\overset{9}{\text{II}}$; it is formed by degrees 2, 4, 6 and 1, the 2, 4 and 6 being from the natural chord $\overset{9}{\text{V}}$, and degree I from the natural chord I. Hence, it is *a mixed chord,* like the great chord from which it is derived. Its law of progression is *duplex,* for it tends either to the derivatives of $\overset{9}{\text{V}}$ (that is, $\overset{7}{\text{VII}}$ or $\overset{7}{\text{V}}$):

46 47

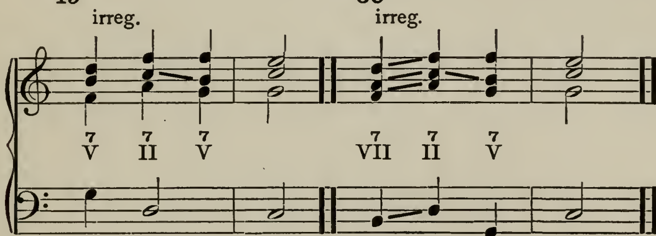


or directly to I:

48

Going away from the tonal centre, the mixed chord $\overset{7}{\text{II}}$ may be preceded by the natural chords $\overset{7}{\text{V}}$ or $\overset{7}{\text{VII}}$ ($\overset{7}{\text{V}}$–$\overset{7}{\text{II}}$ or $\overset{7}{\text{VII}}$–$\overset{7}{\text{II}}$). Though irregular, this progression is sometimes employed, but rectified by an immediate return to a natural chord in the regular way:

49 50



PUCCINI: "Tosca"
51

SEVENTH-CHORD ON THE FOURTH DEGREE, FIGURED $\overset{7}{\text{IV}}$

This chord, usually called the subdominant seventh-chord, is derived from $\overset{\circ}{\text{II}}$. It is formed by degrees 4, 6, 1, 3, and contains two degrees (4 and 6) from the *natural* chord $\overset{\circ}{\text{V}}$ and two degrees

(1 and 3) from the *natural* chord I. It is, therefore, a *mixed chord*, like the $\overset{9}{\text{II}}$ from which it comes, and its law of progression is *duplex*, as it tends either to the natural chords derived from $\overset{9}{\text{V}}$ (that is, $\overset{7}{\text{VII}}$ or $\overset{7}{\text{V}}$):

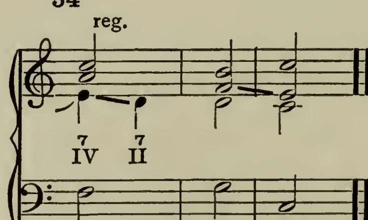
52

or directly to I:

53

This *mixed chord* $\overset{7}{\text{IV}}$ may, very well, be followed, in *regular regressive order*, by the other mixed chord $\overset{7}{\text{II}}$:

54



or preceded by it in *irregular progression:*

55

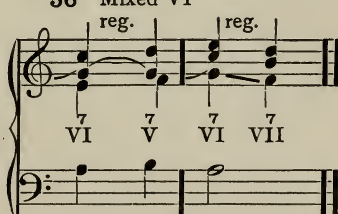
55 bis
SCHUMANN: Romanza
"Ich grolle nicht," meas. 7

You will notice that these two chords constitute the great fundamental chord $\overset{9}{\text{II}}$ from which they are derived.

SEVENTH-CHORD ON THE SIXTH DEGREE, FIGURED $\overset{7}{\text{VI}}$

Like the great fundamental chord $\overset{9}{\text{VI}}$ from which it is derived, the chord $\overset{7}{\text{VI}}$ is a *mixed one,* because it has degree 6 from the natural dominant ninth-chord $\overset{9}{\text{V}}$, and degrees 1, 3 and 5 from the natural tonic chord I. Its law of movement is therefore *dual* or *duplex;* it may go either to the derivatives of $\overset{9}{\text{V}}$ (that is, $\overset{7}{\text{V}}$ or $\overset{7}{\text{VII}}$):

56 Mixed $\overset{7}{\text{VI}}$



or directly to I:

57

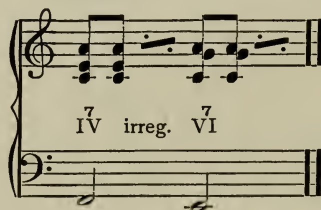
In regular regressive order to the tonal centre the chord $\overset{7}{\mathrm{VI}}$, which we are now considering, passes very easily through the *mixed chords* that come from $\overset{9}{\mathrm{II}}$ (that is, $\overset{7}{\mathrm{IV}}$ and $\overset{7}{\mathrm{II}}$):

58 reg.

59

The inverted *irregular progression* $\overset{7}{\mathrm{IV}}$–$\overset{7}{\mathrm{VI}}$, or $\overset{7}{\mathrm{II}}$–$\overset{7}{\mathrm{VI}}$, is also possible. It gives, of course, the feeling *of going away from the tonal* centre.

60
SCHUMANN: "Ich grolle nicht," measure 6

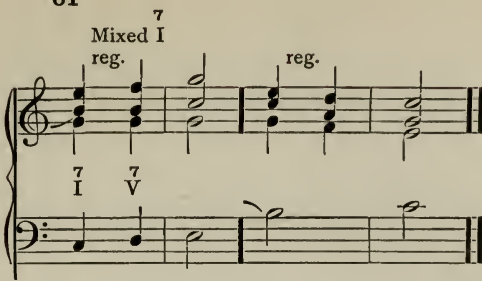


SEVENTH-CHORD ON THE FIRST DEGREE, FIGURED $\overset{7}{\mathrm{I}}$

The chord $\overset{7}{\mathrm{I}}$, like the great chord from which it is derived, is a *mixed chord,* as it has degree 7 from the *natural* dominant chord $\overset{9}{\mathrm{V}}$ and degrees 1, 3 and 5 from the *natural chord* I.

Like the last three *mixed chords* that we have studied ($\overset{7}{\mathrm{VI}}$, $\overset{7}{\mathrm{IV}}$, $\overset{7}{\mathrm{II}}$), the law of movement of $\overset{7}{\mathrm{I}}$ is *duplex;* it may go either to the derivatives of the natural chord $\overset{9}{\mathrm{V}}$:

61

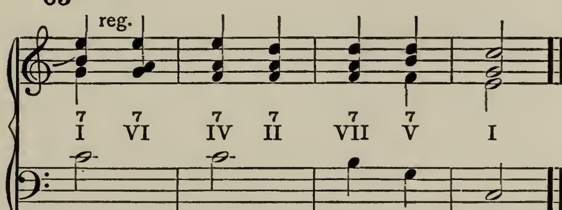


or directly to I:

62

In *regular regressive order* the chord $\overset{7}{\text{I}}$ goes easily through *all* the chords already studied:

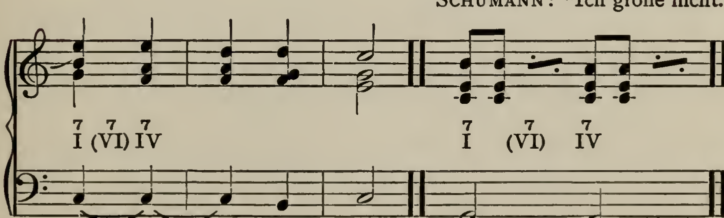
63



or it may skip one or more of them:

64 **65**

SCHUMANN: "Ich grolle nicht."



66

The *irregular* progression preceded by $\overset{7}{\mathrm{VI}}$ (that is, $\overset{7}{\mathrm{VI}}$–$\overset{7}{\mathrm{I}}$), is good, because both of them make up the great parent chord $\overset{9}{\mathrm{VI}}$; nevertheless, this connection is not frequently employed:

67

SEVENTH-CHORD ON THE THIRD DEGREE, FIGURED $\overset{7}{\mathrm{III}}$

At first glance the chord $\overset{7}{\mathrm{III}}$ — *very* seldom used — is not found in my system of four fundamental chords; nevertheless, turn back to the first chord (1, 3, 5, 7, 2), in which we canceled two degrees (the 2 and the 7) to make it consonant, and replacing them, we find chord $\overset{7}{\mathrm{III}}$ formed by degrees 3, 5, 7 and 2.

68

This chord is also *a mixed one*, as it has degrees 7 and 2 from the *natural* dominant chord $\overset{9}{\mathrm{V}}$, and degrees 1 and 3 from the *natural* tonic chord I. Hence, its law of movement is *duplex*, like the other mixed chords; it may go to $\overset{9}{\mathrm{V}}$, or its derivatives $\overset{7}{\mathrm{V}}$ and $\overset{7}{\mathrm{VII}}$:

69 70

or directly to I:

71

In *regressive regular order* it may be followed by all the *mixed* chords already studied:

72

Though *irregular*, the following connection is good, as both chords make up the great chord $\overset{9}{\mathrm{I}}$ from which they come:

73

CONNECTIONS OF SEVENTH-CHORDS (FULL FOUR-TONE CHORDS) WITH TRIADS (THREE-TONE CHORDS)

In these connections *we are obliged* to duplicate one degree in the triads, so that we may have four notes, but they continue to be considered as chords of *three real tones.*

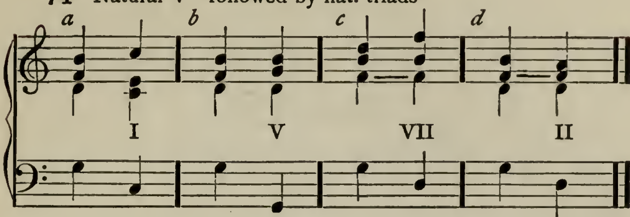
The text-books on Harmony teach that in connecting *seventh-chords* with *triads,* the seventh of the first chord — which is dissonant — *must* descend one degree to a consonant note of the triad; they call this "the natural resolution of the seventh." But here they make a mistake, an error of generalization. Seeing that $\overset{7}{\mathrm{V}}$ goes naturally to I, the bass going up a fourth and the seventh F going down a second, they generalized from a single case and declared that *all dissonant four-tone* chords must resolve in a similar way, the bass going up a fourth and the seventh going down a second. This so-called "rule of natural resolution" is, however, not valid when we come to the chord $\overset{7}{\mathrm{VII}}$; for now the bass does *not* tend to go up a fourth, but actually tends to go up only a second.

My classification of chords and their laws of movement is much more logical, as the *natural chords* $\overset{7}{\mathrm{V}}$ and $\overset{7}{\mathrm{VII}}$ move to the *natural chord* I, or tonal centre, while the *mixed chords* $\overset{7}{\mathrm{II}}$, $\overset{7}{\mathrm{IV}}$, $\overset{7}{\mathrm{VI}}$, $\overset{7}{\mathrm{I}}$, $\overset{7}{\mathrm{III}}$ have a *dual* law of movement, going either to the derivatives of the "natural dominant chord" $\overset{9}{\mathrm{V}}$, or directly to the "natural tonic chord" I, as you may choose. The connecting of the "mixed" chords with "other mixed" chords of the same class is *regular* when their progression is *recessive;* and *irregular,* when their connection is made in the other direction.

Here follow the connections of all the seventh-chords (four-tone chords) followed by triads (three-tone chords).

NATURAL CHORD $\overset{7}{\text{V}}$ CONNECTED WITH ALL NATURAL TRIADS

74 Natural $\overset{7}{\text{V}}$ followed by nat. triads



(*a*) $\overset{7}{\text{V}}$–I. Regular progression; seventh goes down a second.

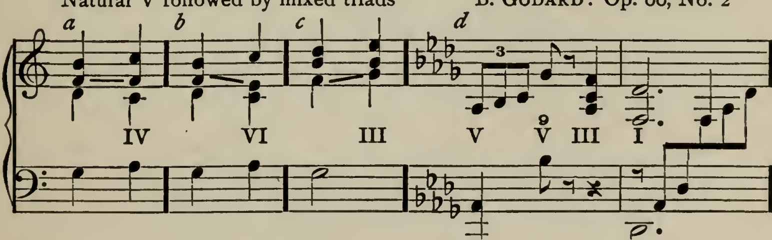
(*b*) $\overset{7}{\text{V}}$–V. No progression; seventh goes up a second.

(*c*) $\overset{7}{\text{V}}$–VII. Irregular progression; seventh goes down a second.

(*d*) $\overset{7}{\text{V}}$–II. Irregular progression; seventh is held in the same part.

CONNECTED WITH MIXED TRIADS

75
Natural $\overset{7}{\text{V}}$ followed by mixed triads B. GODARD: Op. 66, No. 2



PUCCINI: "Bohème"

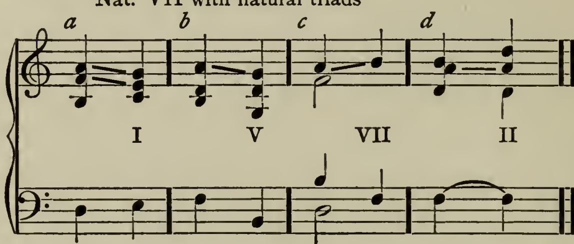
(*a*) $\overset{7}{\mathrm{V}}$–IV. Irregular progression; seventh is held in the same part.

(*b*) $\overset{7}{\mathrm{V}}$–VI. Irregular progression; seventh goes down a second.

(*c, d, e*) $\overset{7}{\mathrm{V}}$–III. Irregular progression; seventh goes up a second.

NATURAL CHORD $\overset{7}{\mathrm{VII}}$ CONNECTED WITH ALL NATURAL TRIADS

76 Nat. $\overset{7}{\mathrm{VII}}$ with natural triads



(*a*) $\overset{7}{\mathrm{VII}}$–I. Natural progression; seventh goes down a second.

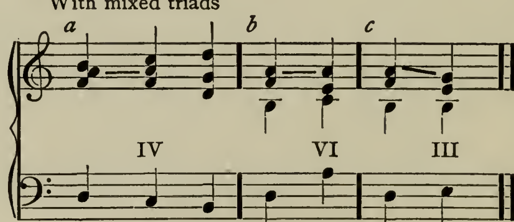
(*b*) $\overset{7}{\mathrm{VII}}$–V. Natural progression; seventh goes down a second.

(*c*) $\overset{7}{\mathrm{VII}}$–VII. No progression; seventh goes up a second.

(*d*) $\overset{7}{\mathrm{VII}}$–II. Irregular progression; seventh keeps in the same part.

SAME CHORD CONNECTED WITH MIXED TRIADS

77
With mixed triads



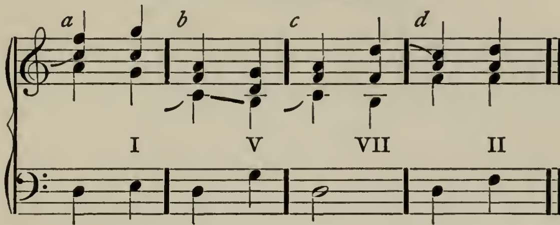
(*a*) $\overset{7}{\mathrm{VII}}$–IV. Irregular progression; seventh keeps in the same part.

(*b*) $\overset{7}{\mathrm{VII}}$–VI. Irregular progression; seventh keeps in the same part.

(*c*) $\overset{7}{\mathrm{VII}}$–III. Irregular progression; seventh goes down a second.

MIXED CHORD $\overset{7}{\mathrm{II}}$ CONNECTED WITH NATURAL TRIADS

78 Mixed $\overset{7}{\mathrm{II}}$ with natural triads



(*a*) $\overset{7}{\mathrm{II}}$–I. Regular progression; seventh keeps in the same part.

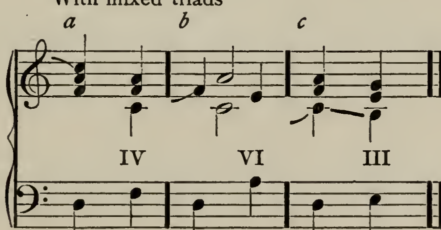
(*b*) $\overset{7}{\mathrm{II}}$–V. Regular progression; seventh goes down a second.

(*c*) $\overset{7}{\mathrm{II}}$–VII. Regular progression; seventh goes down a second.

(*d*) $\overset{7}{\mathrm{II}}$–II. No progression; seventh goes up a second.

SAME CHORD CONNECTED WITH MIXED TRIADS

79
With mixed triads



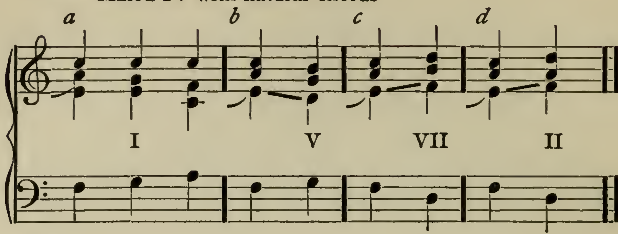
(*a*) $\overset{7}{\mathrm{II}}$–IV. Irregular progression; seventh changes part and disappears as a dissonance.

(*b*) $\overset{7}{\mathrm{II}}$–VI. Irregular progression; seventh keeps in the same part.

(*c*) $\overset{7}{\mathrm{II}}$–III. Irregular progression; seventh goes down a second.

MIXED CHORD $\overset{7}{\mathrm{IV}}$ CONNECTED WITH NATURAL CHORDS

80 Mixed $\overset{7}{\mathrm{IV}}$ with natural chords



(*a*) $\overset{7}{\mathrm{IV}}$–I. Regular progression; seventh keeps in the same part.

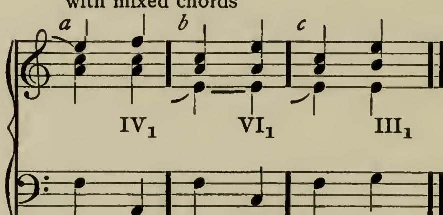
(*b*) $\overset{7}{\mathrm{IV}}$–V. Regular progression; seventh goes down a second.

(*c*) $\overset{7}{\mathrm{IV}}$–VII. Regular progression; seventh goes up a second.

(*d*) $\overset{7}{\mathrm{IV}}$–II. Regular progression; seventh goes up a second.

CONNECTED WITH MIXED TRIADS

81
with mixed chords



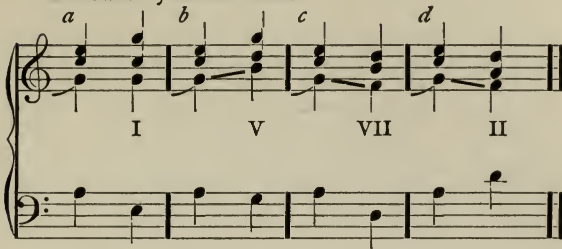
(*a*) $\overset{7}{\mathrm{IV}}$–IV. Stationary; seventh goes up a second.

(*b*) $\overset{7}{\mathrm{IV}}$–VI. Irregular progression; seventh keeps in the same part.

(*c*) $\overset{7}{\mathrm{IV}}$–III. Irregular progression; seventh keeps in the same part.

MIXED CHORD $\overset{7}{\mathrm{VI}}$ CONNECTED WITH NATURAL TRIADS

82 Mixed $\overset{7}{\mathrm{IV}}$
followed by natural triads



(*a*) $\overset{7}{\mathrm{VI}}$–I. Regular progression; seventh keeps in the same part.

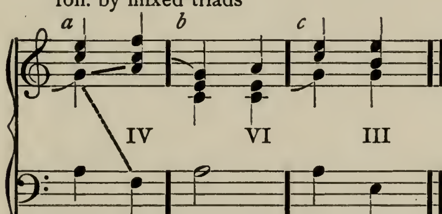
(*b*) $\overset{7}{\mathrm{VI}}$–V. Regular progression; seventh goes up a third.

(*c*) $\overset{7}{\mathrm{VI}}$–VII. Regular progression; seventh goes down a second.

(*d*) $\overset{7}{\mathrm{VI}}$–II. Regular progression; seventh goes down a second.

CONNECTED WITH MIXED TRIADS

83 Mixed $\overset{7}{\mathrm{IV}}$
foll. by mixed triads



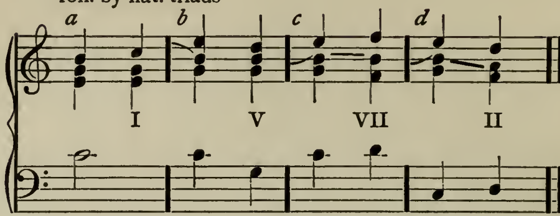
(*a*) $\overset{7}{\mathrm{VI}}$–IV. Regular progression; seventh goes up a second.

(*b*) $\overset{7}{\mathrm{VI}}$–VI. Stationary; seventh goes up a second.

(*c*) $\overset{7}{\mathrm{VI}}$–III. Irregular progression; seventh keeps in the same part.

MIXED CHORD $\overset{7}{\text{I}}$ CONNECTED WITH NATURAL TRIADS

84 Mixed $\overset{7}{\text{I}}$
foll. by nat. triads



(*a*) $\overset{7}{\text{I}}$–I. No progression; seventh goes up a second.

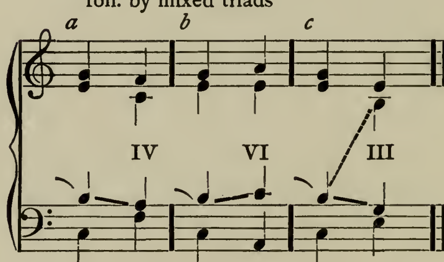
(*b*) $\overset{7}{\text{I}}$–V. Regular progression; seventh keeps in the same part.

(*c*) $\overset{7}{\text{I}}$–VII. Regular progression; seventh keeps in the same part.

(*d*) $\overset{7}{\text{I}}$–II. Regular progression; seventh goes down a second.

CONNECTED WITH MIXED TRIADS

85
foll. by mixed triads



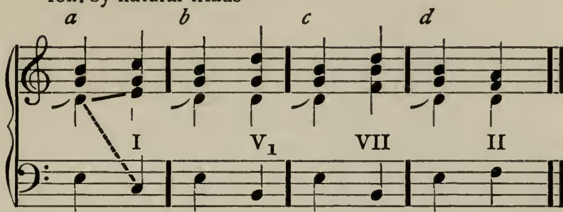
(*a*) $\overset{7}{\text{I}}$–IV. Regular progression; seventh goes down a second.

(*b*) $\overset{7}{\text{I}}$–VI. Regular progression; seventh goes up a second.

(*c*) $\overset{7}{\text{I}}$–III. Irregular progression; seventh goes down a third.

MIXED CHORD $\overset{7}{\text{III}}$ CONNECTED WITH NATURAL TRIADS

86 Mixed $\overset{7}{\text{III}}$
foll. by natural triads



(*a*) $\overset{7}{\text{III}}$–I. Regular progression; seventh goes up a second.

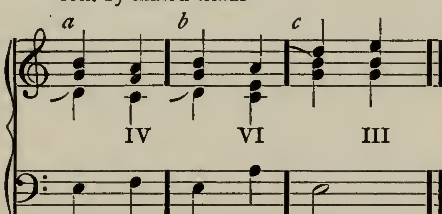
(*b*) $\overset{7}{\text{III}}$–V. Regular progression; seventh keeps in the same part but vanishes as a dissonance.

(*c*) $\overset{7}{\text{III}}$–VII. Regular progression; seventh changes part and vanishes as a dissonance.

(*d*) $\overset{7}{\text{III}}$–II. Regular progression; seventh keeps in the same part.

CONNECTED WITH MIXED TRIADS

87
foll. by mixed triads



(*a*) $\overset{7}{\text{III}}$–IV. Regular progression; seventh goes down a second.

(*b*) $\overset{7}{\text{III}}$–VI. Regular progression; seventh goes down a second.

(*c*) $\overset{7}{\text{III}}$–III. No progression; seventh goes up a second.

TRIADS FOLLOWED BY SEVENTH-CHORDS

We have seen *seventh-chords* connected with *triads.* We are now going to see *triads* connected with *chords of the seventh.*

Besides the *laws of movement* that we are familiar with, we must keep in mind another important condition. The practice of the great masters was, from the beginning, *to prepare* the dissonance in the chords of the seventh, that is, to make the same sound appear as a consonance in the preceding chord. *Monteverde,* a great Italian composer (1567–1643), was the first to let the seventh enter free, that is, not prepared, in the dominant seventh-chord ($\overset{7}{\mathrm{V}}$), and from that time this usage has been respected; nevertheless, all the remaining seventh-chords were kept under the primitive rule and had to prepare the seventh.

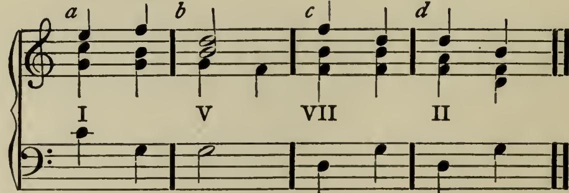
In my system, the chords $\overset{7}{\mathrm{V}}$ and $\overset{7}{\mathrm{VII}}$, being *natural* chords, may have the seventh free; but the remaining four-tone *mixed* chords $\overset{7}{\mathrm{II}}$, $\overset{7}{\mathrm{IV}}$, $\overset{7}{\mathrm{VI}}$, $\overset{7}{\mathrm{I}}$, $\overset{7}{\mathrm{III}}$, must enter with the seventh *prepared.* A modern practice is to consider as sufficient preparation *coming down a degree* when both chords have the same fundamental, as you will see in the examples below.

All these precautions are to be strictly observed in vocal part-music, but in instrumental or *free style* music, modern composers take many liberties in the handling of the seventh-chords. The attentive reading of works by good masters, and a musically educated ear, are a sure guide to the young composer.

THE NATURAL CHORD $\overset{7}{\mathrm{V}}$

May follow any natural or mixed triad; *e.g.:*

88 Nat. $\overset{7}{\mathrm{V}}$
nat. triads



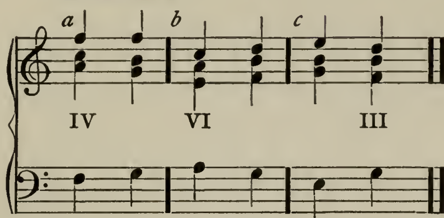
(*a*) I–$\overset{7}{\mathrm{V}}$. Seventh free.

(*b*) V–$\overset{7}{\mathrm{V}}$. Seventh free.

(*c*) VII–$\overset{7}{\mathrm{V}}$. Seventh prepared.

(*d*) II–$\overset{7}{\mathrm{V}}$. Seventh of the second chord heard in another part of the first chord.

89
mixed triads



(*a*) IV–$\overset{7}{\mathrm{V}}$. Seventh prepared.

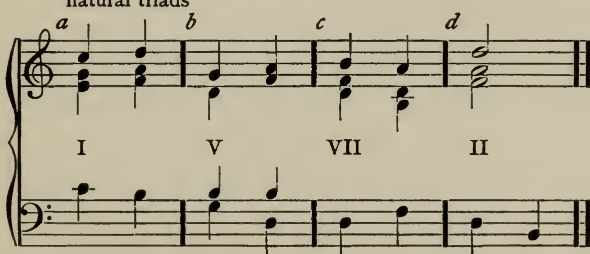
(*b*) VI–$\overset{7}{\mathrm{V}}$. Seventh free.

(*c*) III–$\overset{7}{\mathrm{V}}$. Seventh free.

NATURAL CHORD $\overset{7}{\mathrm{VII}}$

May follow any triad.

90 Nat. $\overset{7}{\mathrm{VII}}$
natural triads



(*a*) I–$\overset{7}{\mathrm{VII}}$. Seventh free.

(*b*) V–$\overset{7}{\mathrm{VII}}$. Seventh free.

(*c*) VII–$\overset{7}{\mathrm{VII}}$. Seventh free.

(*d*) II–$\overset{7}{\mathrm{VII}}$. Seventh prepared.

91
mixed triads

(*a*) IV–$\overset{7}{\mathrm{VII}}$. Seventh prepared.

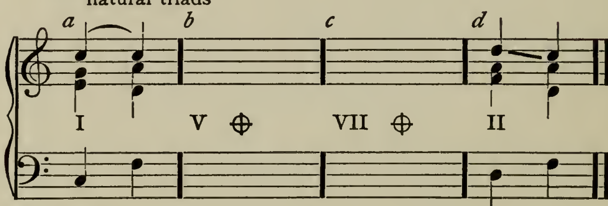
(*b*) VI–$\overset{7}{\mathrm{VII}}$. Seventh prepared.

(*c*) III–$\overset{7}{\mathrm{VII}}$. Seventh free.

MIXED CHORD $\overset{7}{\mathrm{II}}$

Cannot follow V, VII, or III because the seventh cannot be prepared.

92 Mixed $\overset{7}{\mathrm{II}}$
natural triads



(*a*) I–$\overset{7}{\mathrm{II}}$. Seventh prepared, good.

(*b*) V–$\overset{7}{\mathrm{II}}$. Bad, because seventh is not prepared.

(*c*) VII–$\overset{7}{\mathrm{II}}$. Bad, because seventh is not prepared.

(*d*) II–$\overset{7}{\mathrm{II}}$. Seventh enters by a second down; permitted, because both chords have the same fundamental.

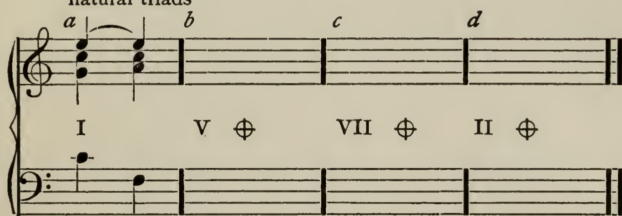
93
mixed triads

(*a*) IV–$\overset{7}{\text{II}}$. Seventh prepared, good.
(*b*) VI–$\overset{7}{\text{II}}$. Seventh prepared, good.
(*c*) III–$\overset{7}{\text{II}}$. Bad, because seventh cannot be prepared.

MIXED CHORD $\overset{7}{\text{IV}}$

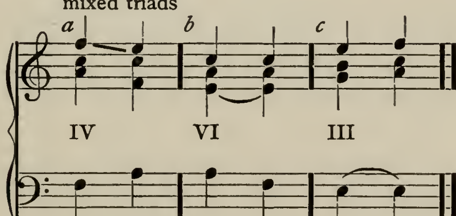
Cannot follow VI, VII, or II because the seventh cannot be prepared.

94 Mixed $\overset{7}{\text{IV}}$
natural triads



(*a*) I–$\overset{7}{\text{IV}}$. Good; seventh prepared.
(*b*) V–$\overset{7}{\text{IV}}$. Bad.
(*c*) VII–$\overset{7}{\text{IV}}$. Bad.
(*d*) II–$\overset{7}{\text{IV}}$. Bad.

95
mixed triads



(*a*) IV–$\overset{7}{\text{IV}}$. Seventh prepared by a second down; permitted, because both chords have the same fundamental.
(*b*) VI–$\overset{7}{\text{IV}}$. Good.
(*c*) III–$\overset{7}{\text{IV}}$. Good.

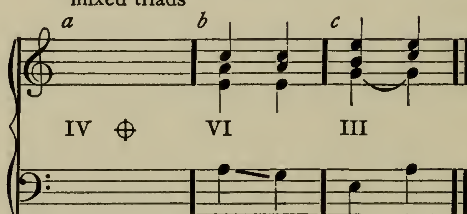
MIXED CHORD $\overset{7}{\text{VI}}$

More used than $\overset{7}{\text{IV}}$ and less used than $\overset{7}{\text{II}}$: cannot follow VII, II and IV because the seventh cannot be prepared.

96 Mixed $\overset{7}{\text{VI}}$
natural triads

(*a*) I–$\overset{7}{\text{VI}}$. Good.
(*b*) V–$\overset{7}{\text{VI}}$. Good.
(*c*) VII–$\overset{7}{\text{VI}}$. Bad.
(*d*) II–$\overset{7}{\text{VI}}$. Bad.

97
mixed triads



(*a*) IV–$\overset{7}{\text{VI}}$. Bad.

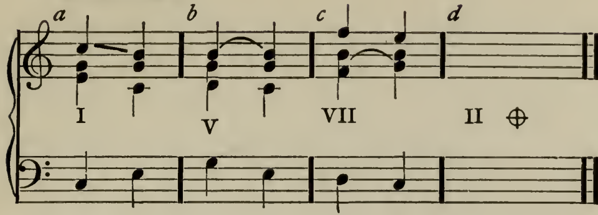
(*b*) VI–$\overset{7}{\text{VI}}$. Seventh prepared by a second down; permitted, because both chords have the same fundamental.

(*c*) III–$\overset{7}{\text{VI}}$. Good.

MIXED CHORD $\overset{7}{\text{I}}$

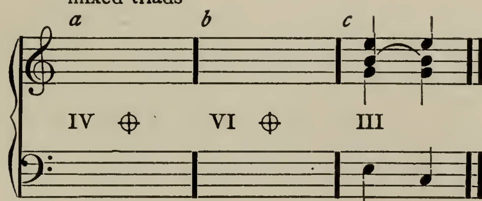
Cannot follow II, IV and VI because the seventh cannot be prepared.

98 Mixed $\overset{7}{\mathrm{I}}$
natural triads



(*a*) I–$\overset{7}{\mathrm{I}}$. Good.
(*b*) V–$\overset{7}{\mathrm{I}}$. Good.
(*c*) VII–$\overset{7}{\mathrm{I}}$. Good.
(*d*) II–$\overset{7}{\mathrm{I}}$. Bad.

99
mixed triads

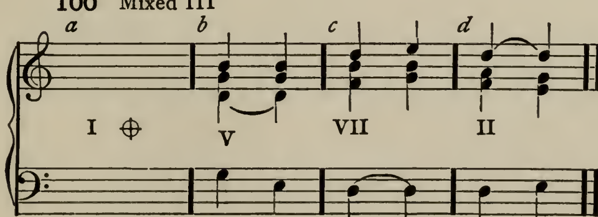


(*a*) IV–$\overset{7}{\mathrm{I}}$. Bad.
(*b*) VI–$\overset{7}{\mathrm{I}}$. Bad.
(*c*) III–$\overset{7}{\mathrm{I}}$. Good.

MIXED CHORD $\overset{7}{\mathrm{III}}$

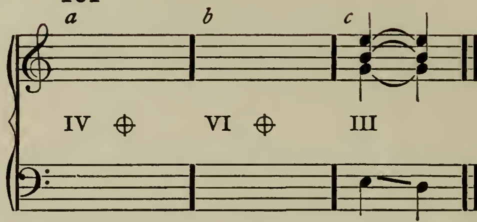
This is the least used of all the chords of the seventh. Cannot follow triads I, IV and VI, because the seventh cannot be prepared.

100 Mixed $\overset{7}{\mathrm{III}}$



(*a*) I–$\overset{7}{\text{III}}$. Bad.
(*b*) V–$\overset{7}{\text{III}}$. Good.
(*c*) VII–$\overset{7}{\text{III}}$. Good.
(*d*) II–$\overset{7}{\text{III}}$. Good.

101



(*a*) IV–$\overset{7}{\text{III}}$. Bad.
(*b*) VI–$\overset{7}{\text{III}}$. Bad.
(*c*) III–$\overset{7}{\text{III}}$. Seventh prepared by a second down; permitted, because both chords have the same fundamental.

MINOR SCALE AND MINOR KEYS

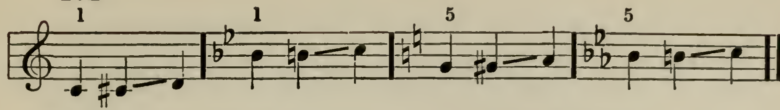
The *laws* that have been established for *major keys* are applicable *in every case* to the *minor keys.*

CHROMATICS

Chromatic alterations to single degrees of the scale produce the following results:

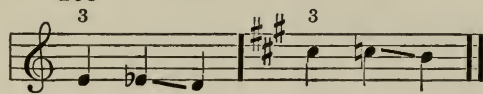
(1) When applied to a tranquil scale-degree (1, 2, or 5), chromatic alteration *gives it a tendency to go in the same direction* that the alteration points; that is, if the alteration is a *sharp* (or a *natural,* in the flat keys), the *tendency* imparted is to continue upward:

102



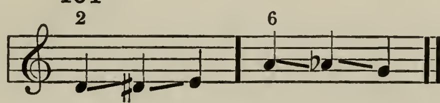
When the alteration is a *flat* (or a *natural*, in the sharp keys), it gives tranquil degrees a *tendency* to go down:

103



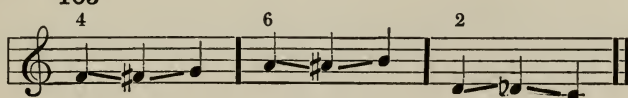
(2) In case the chromatic alteration is applied to an active scale-degree (7, 4, 5, or 2), it *will intensify* the tendency of the said degree if it is in the same direction as the tendency:

104



Or it *will change* the said tendency when the alteration is in a contrary direction.

105

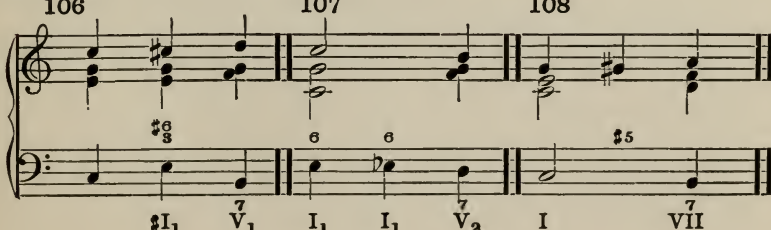


ALTERED OR CHROMATIC CHORDS

All that has been said here of chromatic alterations, when applied melodically to single notes, *is also good* when we come to altered chords.

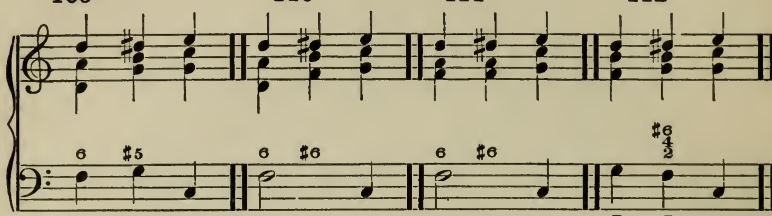
The natural chord I, that has no particular tendency, *acquires one* when it becomes an altered chord:

106 107 108



The natural chords V, VII, II, $\overset{7}{\mathrm{V}}$ and $\overset{7}{\mathrm{VII}}$, which have a tendency to proceed to the natural tonic chord I, *intensify this tendency* when they become altered chords:

109 110 111 112



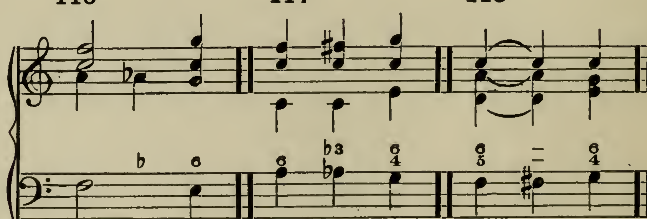
II_1 V I II_1 VII_2 I II II_1 I $\overset{7}{\mathrm{V}}$ $\overset{7}{\mathrm{V}}_3$

113 114 115

$\overset{7}{\mathrm{V}}_2$ $\overset{7}{\mathrm{V}}_2$ I V $\overset{7}{\mathrm{VII}}$ I $\overset{7}{\mathrm{VII}}_1$

The chromatic alterations employed in the mixed chords IV, $\overset{7}{\mathrm{II}}$ and $\overset{7}{\mathrm{IV}}$ make them lose the faculty that they had, at the choice of the composer, to go to the derivatives of the $\overset{9}{\mathrm{V}}$, and give them a *decided tendency* to the tonic chord I:

116 117 118

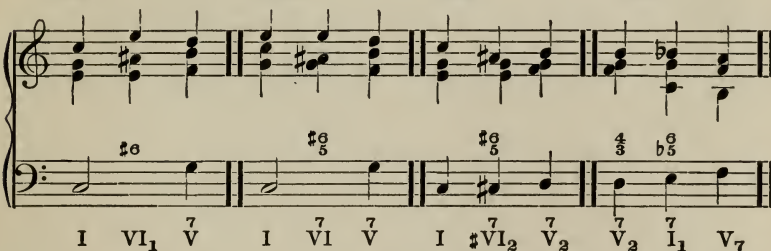


IV IV I_1 IV $\sharp\mathrm{IV}_1$ I $\overset{7}{\mathrm{II}}_1$ I_2

119 **120** **121**

On the contrary, the chromatic alterations in the mixed chords VI, $\overset{7}{\text{VI}}$ and $\overset{7}{\text{I}}$, make them lose the ability to go to the tonic chord, and give them a *decided tendency* to the derivatives of the dominant ninth-chord:

122 **123** **124** **125**



MODULATION

In musical Harmony, modulation means a change of key or tonality; by extension, the change of *mode* is also considered as a modulation. Therefore, we may say that MODULATION *is a change of key, or of mode, or of key and mode* at the same time. The change of key brings a change in the function of the tones (or notes) in the scale and, therefore, a change in the function of chords, as a natural *tonic* chord may become a natural *dominant*, or a *mixed* chord, and so forth.

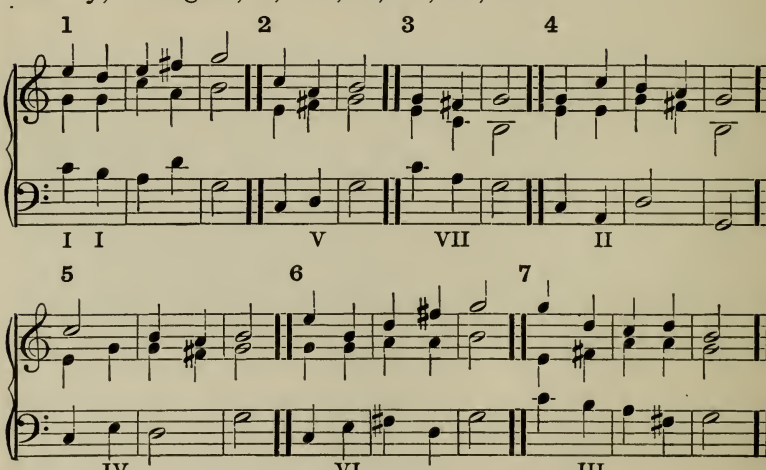
The principle that rules modulation is very simple and may be stated thus: *A key may be abandoned at* ANY CHORD (natural, mixed or altered), *entering the new key through* ANY CHORD (nat-

ural, mixed or altered). The last chord of the old key *escapes*, of course, the laws previously established; but the first chord of the new key is governed by the said laws, and must obey them.

The author believes that the place to treat thoroughly of modulation is in a method of Harmony based on his system; nevertheless, it may not be out of place here to give a sample of the almost unlimited resources that the principle just stated about modulation puts in the hands of the composer. *There are more than two thousand ways of leaving a key.* It is not impossible that some of the extravagances of the ultra-modern composers in striving after novelty is due, in good part, to the many restrictions of the accepted books on Harmony.

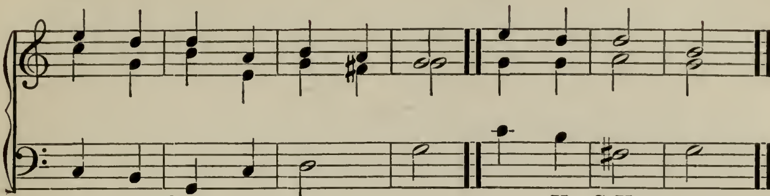
Here follow, as a sample, *forty-nine* different ways of effecting a modulation from C major to G major, employing only chords of three tones. If we choose to use four-tone chords (chords of the seventh), we shall have another forty-nine different ways of effecting the same modulation. There will be some fifteen or twenty more new ways if we employ altered chords! What a wealth of resources for a single modulation like this!

Leaving the Key of C major at I and entering G major, successively, through I, V, VII, II, IV, VI, III.



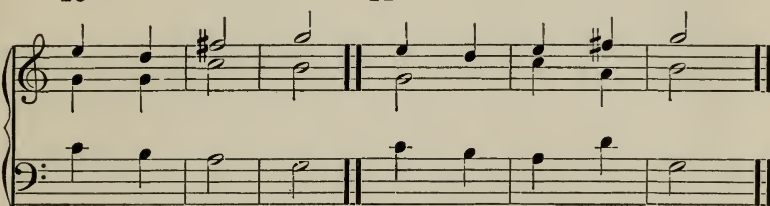
Leaving the Key of C major at V and entering G major, successively, through I, V, VII, II, IV, VI, III.

8 9



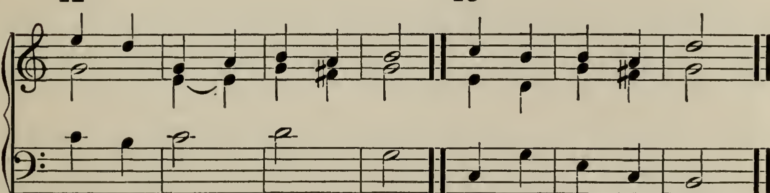
V G I V G V

10 11



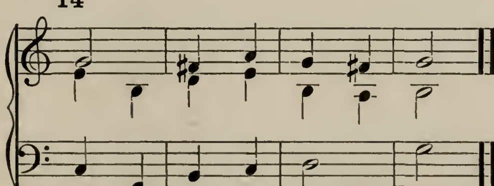
V G VII V G II

12 13



V G IV V G VI

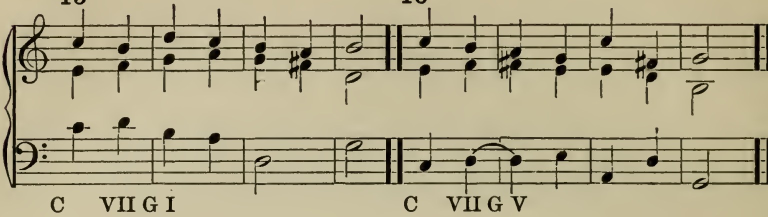
14



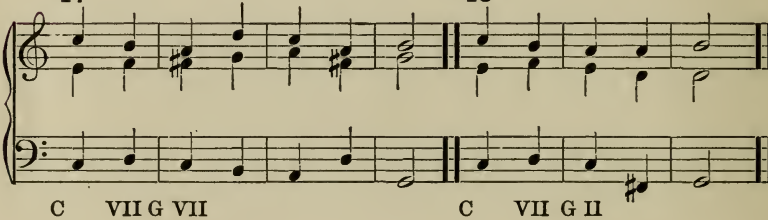
V G III

Leaving the Key of C major at VII and entering G major, successively, through I, V, VII, II, IV, VI, III.

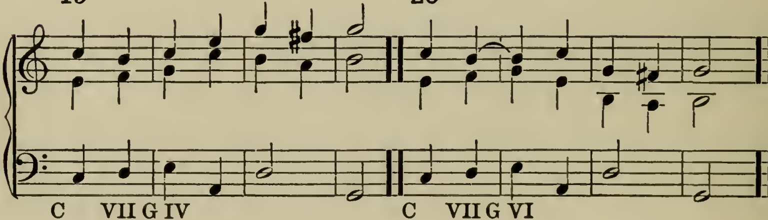
15 16



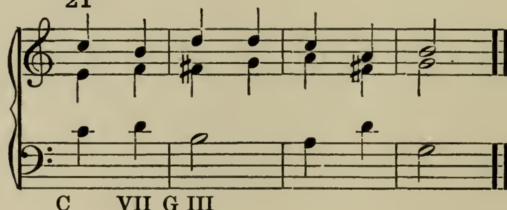
17 18



19 20

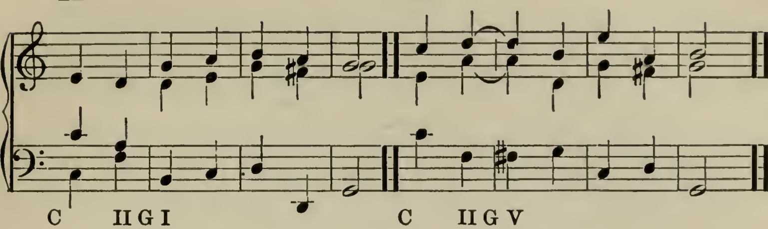


21

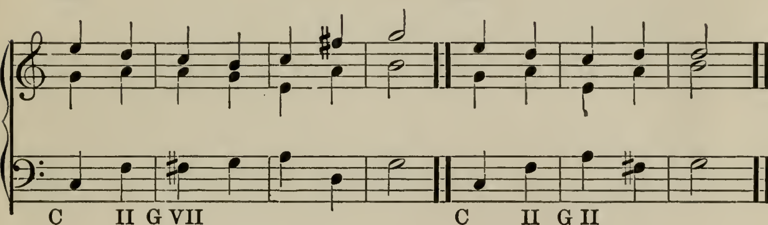


Leaving the Key of C major at II and entering the Key of G major through I, V, VII, II, IV, VI, III.

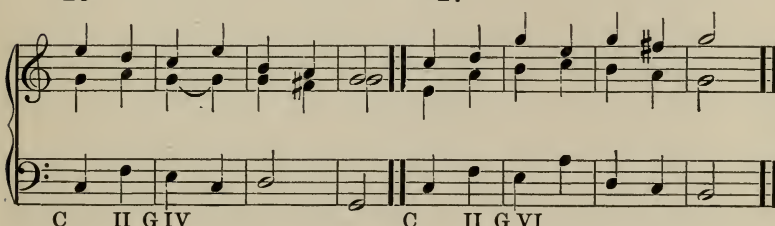
22 23



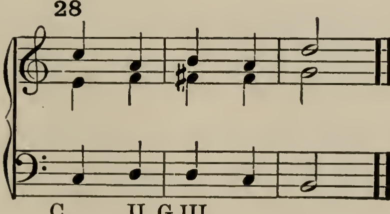
24 25



26 27



28



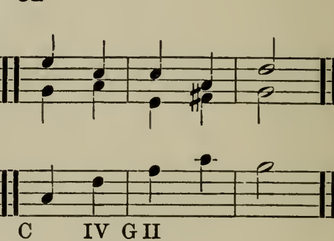
Leaving the Key of C at IV and entering the Key of G through I, V, VII, II, IV, VI, III.

29

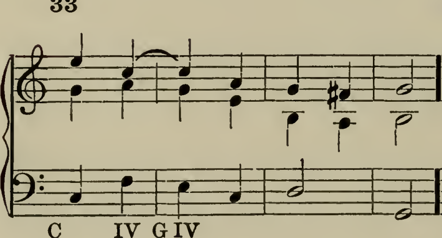
30

31

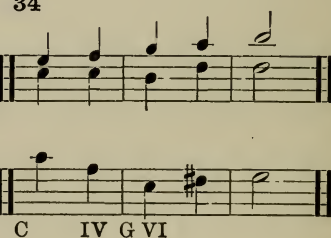
32



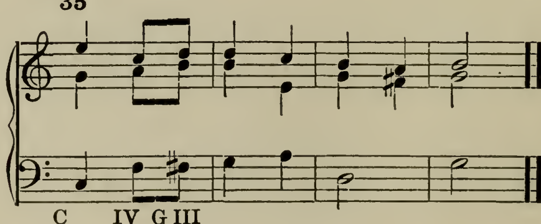
33



34



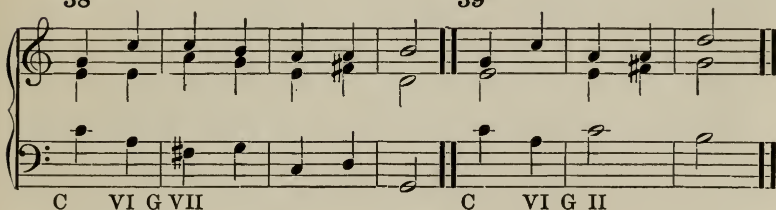
35



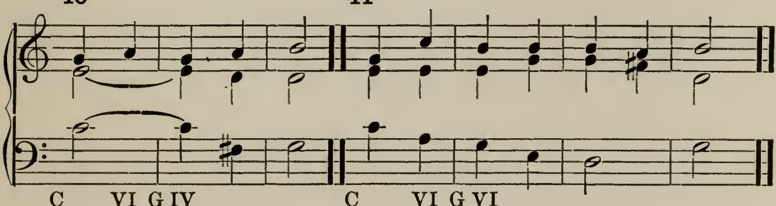
Leaving the Key of C at VI and entering the Key of G through I, V, VII, II, IV, VI, III.

36 37

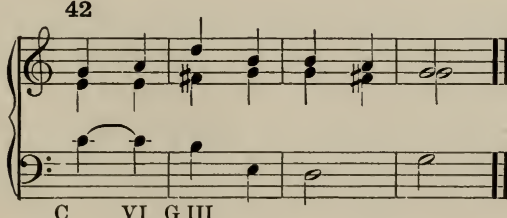
38 39



40 41

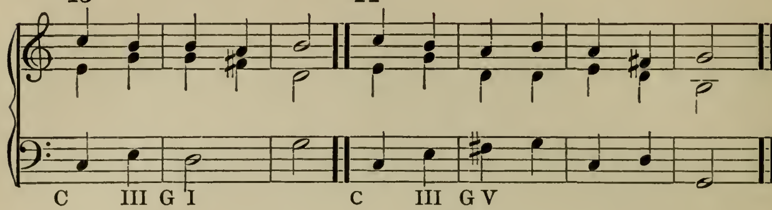


42

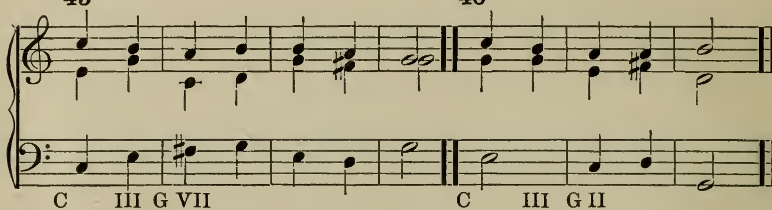


Leaving the Key of C at III and entering the Key of G through I, V, VII, II, IV, VI, III.

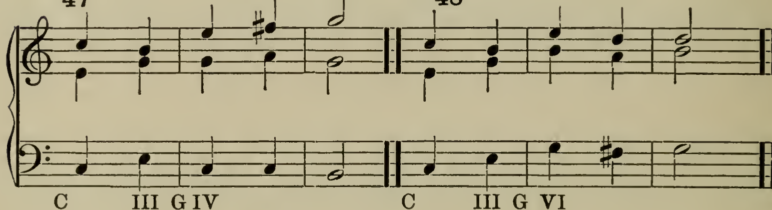
43 44



45 46



47 48



49

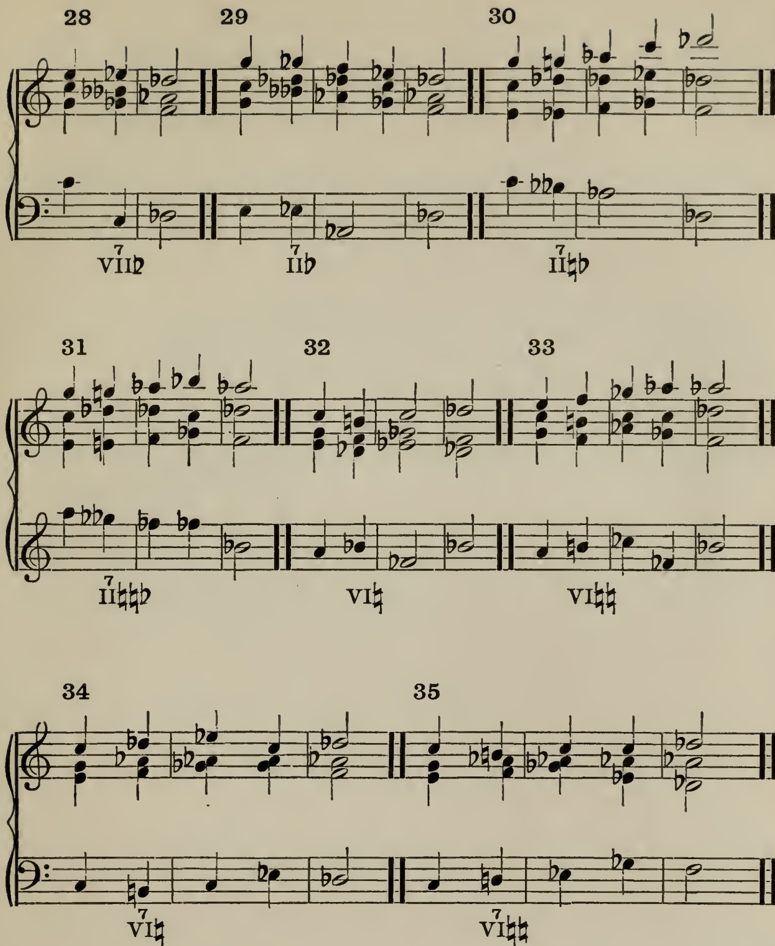
The composer has the same liberty in the so-called "extraneous modulations." Let us take, as an example, a modulation *a minor second upward;* some books teach *one way only* of effecting this modulation, namely, "to leave the old key at the tonic chord (I) and to enter the new key through its dominant seventh-chord ($\overset{7}{\text{V}}$)." Here follow *thirty-five* different ways of effecting

146

the said modulation, leaving the old key at the tonic chord. Imagine how many more ways there are if we apply the principle of "*leaving the key at any chord!*"

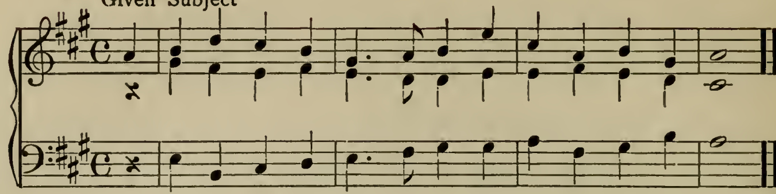
THIRTY-FIVE MODULATIONS FROM C MAJOR TO D♭ MAJOR
(that is, a minor second upward), starting with the tonic triad


16
17
18
VII♮
V♮ 7
19
20
21
VII♮ 7
II₂♮
IV♮
22
23
24
II♮ 7
IV♮ 7
IV♭
25
26
27
II♭
IV♭
IV♮♭



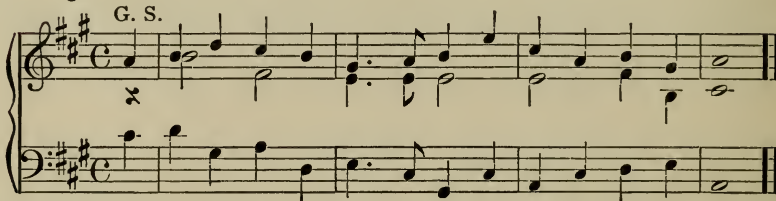
In order to show the rapid progress which is possible when applying my system of Harmony and the laws and principles derived from it, I append a melody (given subject) harmonized in six different ways by a pupil of mine after he had taken *thirteen lessons!* I must say, to be exact, that this exercise required three or four corrections.

1



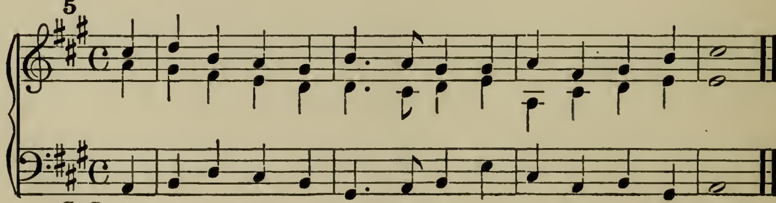
2

3

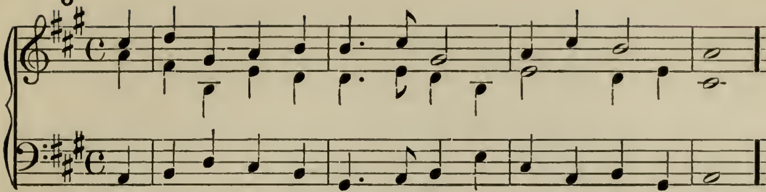


4

5



6



G. S.

This concludes the exposition of my system. I call it a *new* one because I do not know of any author who has explained the whole system of harmony based on these four fundamental chords. It is not a mere trifle, or an object of mere curiosity, for the *laws* that rule melody as well as chords have been deduced by a rigorously scientific method, as you have seen. Furthermore, these rules are *very few*, eminently practical, and easy of application.

I have read many times, and I was inclined to believe so myself, that the true method of musical composition ought to be deduced from the practice of the great masters. I confess here that after much thinking on the subject there came to my mind, as a revelation, the group of four fundamental chords that make up my system; the *laws* that I have explained here are the result of long study and a strict application of scientific principles.

Having discovered the *laws*, the next step was to see if the great composers had observed them in their handling of musical material; and I was soon convinced that they had, guided surely by the fine sense and marvelous intuition peculiar to great artists. I could quote innumerable examples that prove what I have said here, but the proper place for these will be in a Method of musical composition still to be written, based on this new classification of chords.

In handling the musical chords under the laws stated here, *you are conscious of what you are doing;* this (if I may speak from my own experience) is not the case when you are studying the ordinary text-books on the subject.

For many years I have devoted myself to the study of Pedagogy, trying assiduously to apply its principles in all branches of music-teaching. Viewing my system from the pedagogical standpoint, a new path is in sight, which reveals the most important facts for writing a true pedagogical method of composition — a method in which melody, harmony and counterpoint will go simultaneously hand in hand, as the real friends that they are, and not disconnected one from the other as it has been the custom to present them heretofore.

I hope that the foregoing exposition will be considered by the musical world with the attention that I think it deserves; and I shall be glad to read and take account of all the criticisms that my fellow musicians may have to make about this important subject.

EDUARDO GARIEL

Tacubaya, D. F., suburb of the City of Mexico
October, 1915